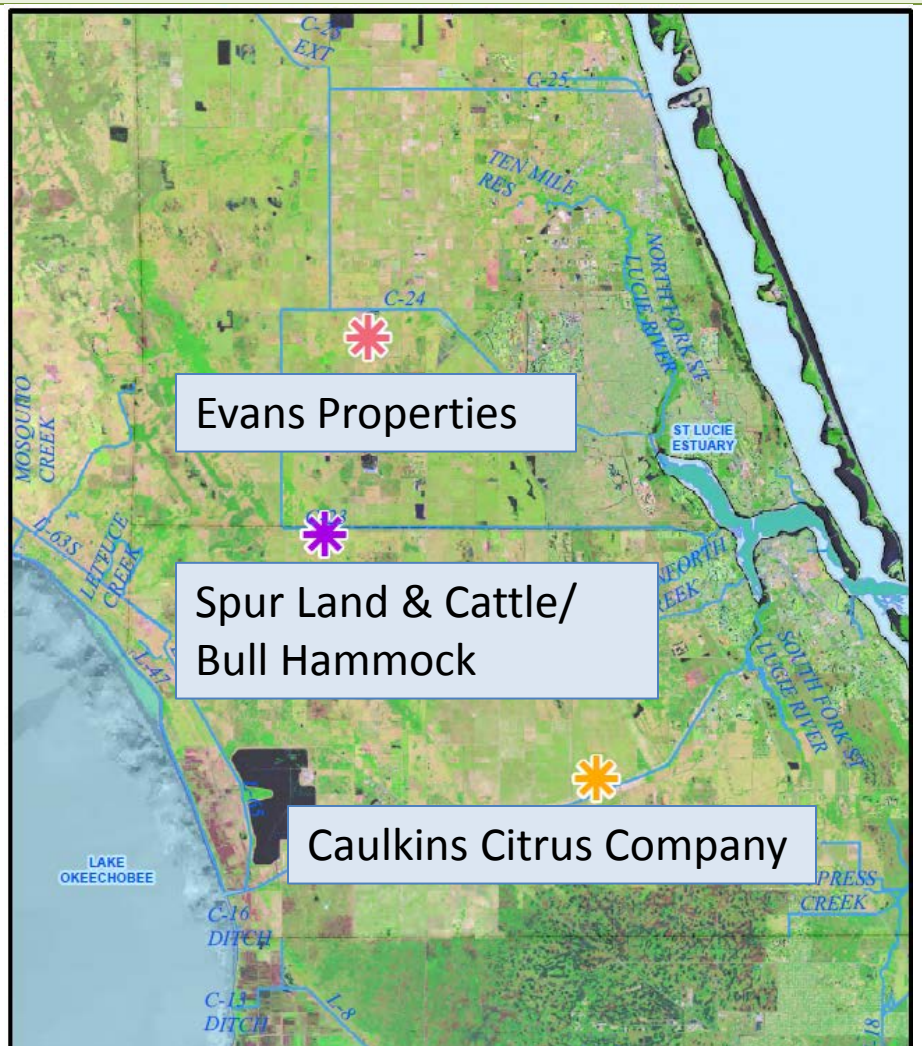
Water Farming Pilot Projects 2015
St. Lucie Watershed

Governing Board Meeting
April 9, 2015

Matt Morrison, Federal Policy Chief
Office of Everglades Policy & Coordination

Water Farming Pilot Projects

Public-Private partnerships that enhance opportunities for storing excess surface water on privately owned fallow citrus lands



- Total number of pilot projects: Three (3)
- Total number of operational projects: Two (2)
- Program partially funded through Section 319 Grant Agreement with FDEP

Pilot Project Funding:
Section 319(h) Grant

- Funding amount is $1,506,401 with a required match by the District of $1,581,000
- Three pilot projects are:
  - Caulkins Citrus
  - Evans Properties
  - Spur Land & Cattle/Bull Hammock Ranch

Caulkins Water Farm

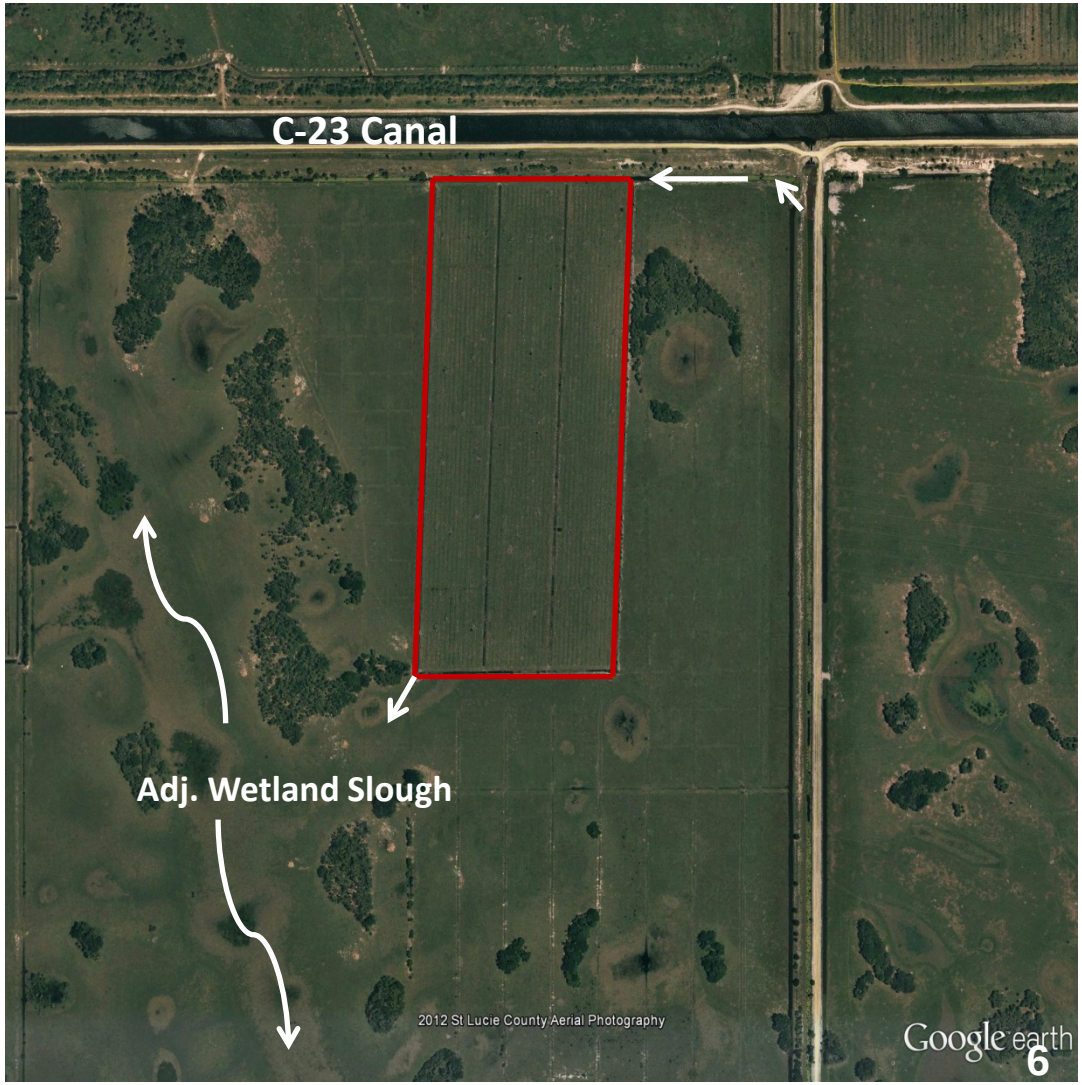
- 413 acre Above Ground Impoundment
- Operational: February 2014
- Static Fill Volume: 1,652 ac-ft
- Estimated Annual Volume Pumped: 6,780 ac-ft
- Actual Volume Pumped 2014: 11,840 ac-ft
- Water Budget/Seepage Analysis Study Ongoing

Caulkins Water Farm (Cont.)

- Construction: $554,000
- O&M and Participation Payments: $570,830
- Original Estimated Cost Effectiveness: $77 per ac-ft

Spur Land & Cattle Water Farm

- 60 acre Above Ground Impoundment
- Operational: November 2014
- Static Fill Volume: 240 ac-ft
- Annual storage:870 ac-ft
- Utilizing adjacent wetland slough for additional storage & water quality treatment

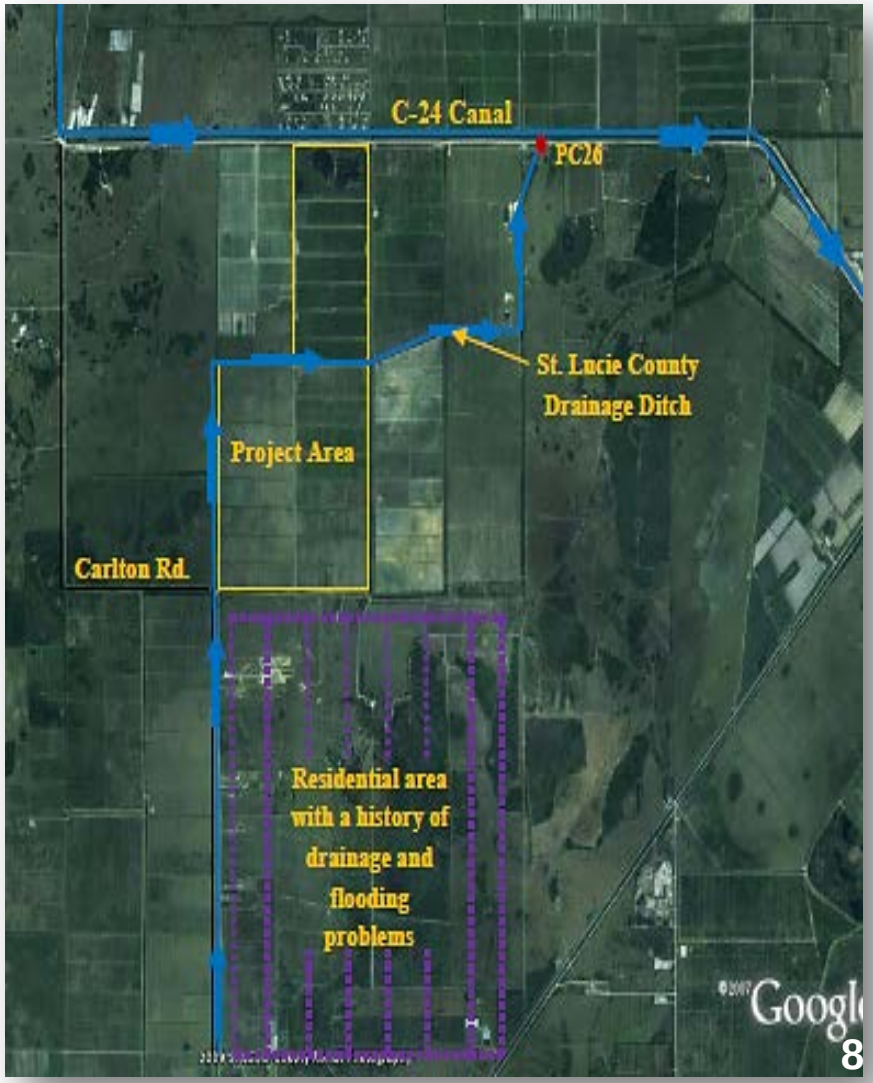


Spur Land & Cattle Water Farm (Cont.)

- Construction: $136,000
- O&M and Participation Payments: $54,720 annually for two years
- Original Estimated Cost Effectiveness: $81 per ac-ft

Evans Water Farm

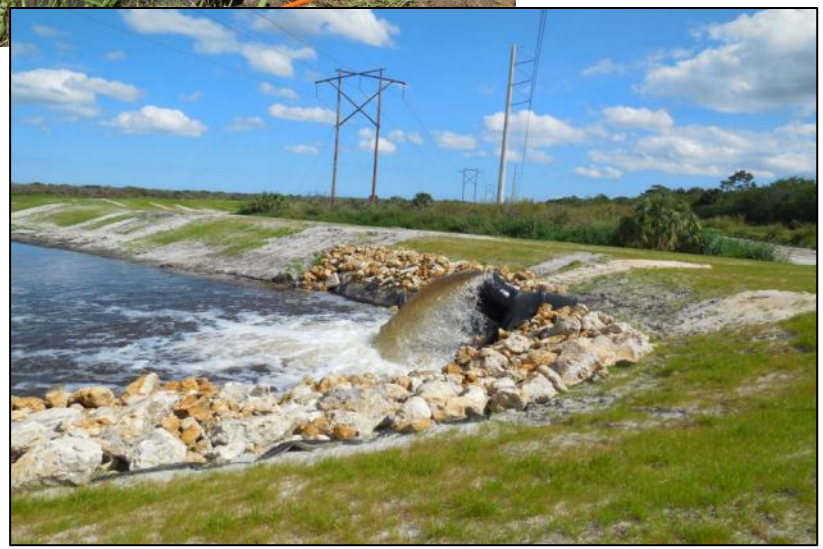
- 900 acre low level storage
- Anticipated operational: April 2015
- Estimated average annual retention: 3,635 ac-ft
- Construction: $317,780
- O&M and Participation Payments: $537,169 annually for two years
- Original Estimated Cost Effectiveness: $147 per ac-ft



Water Quality Sampling

Water Quality Data

- Inflow data
  - Sampled for total phosphorous, nitrogen and total suspended solids
  - Samples collected only when Water Farms are operational
- Projects only discharge water during extreme rain events
  - Samples collected if discharges occur



Hydrologic Monitoring

All Project Monitoring

- Daily stage measurement
- Daily rainfall measurement

Seepage Monitoring on Caulkins

- Wells installed to determine whether stored water is moving deep or laterally due to unique soil characteristics of site

Next Steps

- Complete seepage analysis on Caulkins
  - Need to collect full wet and dry season data
- Continue to collect water quality and quantity data on all three projects
  - Each project funded for two years of operations